# **Protecting the Public & the Environment**

Safety is embedded in every step of the Reactor Facility Decommissioning project. NASA's number one priority is protecting the public, the workers and the environment throughout the project.

SAFEGUARDS are put in place before actual work begins. ATTENTION is given to safety while work is in progress.

MONITORING gives NASA the information to know that preventive measures are effective in protecting public health & safety.



Portable goose neck air samplers monitor inside work areas to verify effectiveness of engineering controls.

## **Contained Onsite**

Several important safeguards are in place - to check and recheck that radiation is contained onsite. Advanced safety planning and engineering controls provide multiple barriers, or redundant controls, to prevent the release of radioactivity at the source as well as minimize the area over which it might be dispersed.



HEPA filtered vacuums collect material at the point of origin (during cutting and grinding) to prevent spread of contamination

### PREVENT RELEASES AT THE SOURCE

#### **Minimize Dust Generation**

Decontaminate the source (It may be possible to wipe up dust on surfaces)

Use localized exhaust with HEPA (High Efficiency Particulate Air) filters

#### **Minimize Dust Distribution**

Construct temporary enclosures (tents) and use HEPA filtered air

Install process ventilation system over the reactor vessel

Enforce controlled entry and exit to work area



A specially designed ventilation system is being used inside the containment vessel during segmentation. This ventilation system filters air through a series of 16 HEPA filters - each with a 99.97% efficiency to capture particulates to 0.3 microns. The ventilation system maintains a negative air pressure inside the workspace - air is drawn from outside, constantly recirculated, and filtered of any airborne contamination before being released outside. Shown above is a small portable HEPA ventilation system.



Workers are surveyed from head to toe and all that they carry (funchboxes, clipboards, etc.) into and out of the site. This ensures no radiation can be carried out of the Reactor Facility.



A Geiger Counter is one type of hand-held detector that is used to measure the radiation from a specific object. NASA surveys all vehicles, drivers and contents before they enter or exit the site to spot any direct contamination.



Workers enter through a 2-door airlock that blocks escape of airborne contamination.